



LOGGERHEADLINES

Sea Turtle News from South Carolina

August and September, 1999

Greetings !

This will be our last issue of *Loggerheadlines* for the 1999 sea turtle season. Any strandings that occur from October through December will appear in the tables when the first issue is produced next spring. We appreciate all the input from the volunteers and from our colleagues to the north and south.

Strandings

Twenty-one carcasses were reported by the network for August. This is slightly higher than the previous six years. There were 14 loggerheads and seven Kemp's ridleys. This brings the season total of Kemp's ridleys to 20, which is the highest ever. Five of the ridleys stranded in Horry County. The other two were on Kiawah and Hilton Head Islands. Again the central coast accounted for over 50% of the strandings.

Only one of the loggerheads was an adult. It was a female and had a curved carapace length of 43 inches. Four of the seven Kemp's ridleys were involved with fishing hooks. One was released alive after two hooks were removed.

The five carcasses reported in September were all loggerheads and all juveniles. Three of them were still adrift in inshore bodies of water

such as Charleston Harbor and the North Edisto River. This total for September is well below the 19 for last year and the two previous years. Hopefully this means that most of the turtles have moved offshore and there will be very few strandings during the next three months. If so, then 1999 will be the lowest stranding total in the last five years.

Necropsy

Eight turtles were necropsied in the month of August. Four of these were loggerheads and the other four were Kemp's ridleys. We were able to sex seven of the eight and they were all female. Three of the ridleys had fishing hooks, either externally or internally. One was hooked in a front flipper and the other two had hooks in the throat and the mouth cavity. One loggerhead also had a hook in its mouth.

A loggerhead was found alive by fishermen in Little River Inlet, near the North Carolina border. Shark bites were evident on three of the flippers and the left front flipper was completely severed, so this animal was euthanized. It was in good condition prior to the attack and the wounds were fresh.

Another loggerhead may have died from injuries sustained from a boat collision. One turtle was necropsied in September. It was an immature loggerhead that stranded on

Edingsville Beach. None of the nine animals necropsied this period was adult size.

Nesting News

Based on reports from the nest protection projects, there were 3,055 nests laid on their beaches. Since the project beaches represent about 70% of the nesting effort, this means that there was a total of 4,364 nests for the statewide nesting estimate. This compares to 1,409 for Georgia and 1,155 for North Carolina. Although the numbers are not available for north Florida, it is evident how important South Carolina is to the northern sub-population of the loggerhead turtle.

Reports from the field

Correction: In the July issue of *Loggerheadlines*, we reported on a turtle that had trouble digging an egg chamber at Edisto Beach State Park because of compacted sand, and said that this part of the beach has recently been renourished. This was not the case. This turtle did not attempt to nest on the beach, but went back into the campground in a grassy field where vehicles had driven over the area. This was why the sand was so hard. We appreciate the hours spent by park personnel to relocate the nest and insure that the turtle got back to the ocean safely and apologize for the error.

Pritchards Island: Project staff are very pleased to have had a total of 134 nests laid on the beach this season. As in past seasons, due to the continued lack of suitable nesting habitat, the majority of these nests were relocated. The hatching success percentage is the lowest in the 17- year history of the project.

The sea turtle program on Pritchards Island is managed by the University of South Carolina - Beaufort, Center for Coastal Ecology, which conducts programs on sea turtles and other environmental issues. In the period June-August approximately 647 individuals participated in these programs.

Isle of Palms: Mary Pringle took a columnist with the Scripts-Howard newspaper syndicate to a morning inventory. The story ran either August 25th or 27th. To read it on the INTERNET look under <www.nandotimes.com> click on Opinions and then scroll down to Sharon Randall. Her column appears in 400 papers across the country.

Dewees Island: Arla Jessen witnessed a hawk, she believes was a red-tailed, coming out of the woods just before sunset around 8:00 P.M. and swooping down at crawling hatchlings.

Folly Beach: The total number of nests at Folly Beach this season was 55. This total is up from 46 in 1998 and 40 in 1997. Seven nests were lost to the hurricane. Some nests had hatched prior to the dunes being swept away, but were not yet inventoried. All in all it was a great year at Folly, and many friendships have been developed. The mayor, the council members, tourists and the community have been supportive. In addition, the South Carolina Aquarium is planning on future outreach with the Folly Beach project. Look at our web site at <www.follyturtles.com> for more information.

Impact of Hurricane Floyd

In South Carolina the majority of nests hatch before the peak of the hurricane season. On most beaches, only the few nests laid in August remained when Hurricane Floyd arrived, and both Dennis and Floyd stayed offshore as they passed our state.

Nine of the nineteen projects provided some observations of the impact. There was little or no damage in the southern third of the state from Hurricane Floyd, and no nests from this region were reported washed away.

On the middle third of the coastline, dunes were scarped and there was overwash of low profile beaches. Some nests were washed away and others were covered with sand deposits. The islands in the Cape Romain

National Wildlife Refuge were the hardest hit of the entire coast. All of Cape Island's dunes were flattened, and of the 52 (4% of total nests laid) remaining nests on the beach, most could not be found for inventory. Those nests that were inventoried were near total losses in terms of hatch success.

The northern third of the state had heavy damage to their remaining nests and the nesting habitat. Hurricane Dennis also brought storm surge and heavy rains to the central and northern coasts. This caused loss of nests and damage to the nesting habitat similar to Floyd in some areas.

When all the hatching data is available, we should see a lower percent hatching success, but some of this may be made up in the higher than average nest numbers.

Regional News

North Carolina - Ruth Boettcher, with the North Carolina Wildlife Commission, reports that the beaches are a "mess," especially in Brunswick County. The preliminary nest total for the year is 1155 nests. An estimated 346 nests were washed out to sea. Hatching rates will probably be greatly reduced among post-storm hatches. The good news is that 520 nests hatched and/or were inventoried prior to Hurricane Dennis. So, at a minimum, 1999 may turn out to be comparable to a very low nesting year with no storms.

Georgia - Mark Dodd with Georgia DNR reports that recently the rate of strandings has been low, but Georgia is still 30 carcasses above last year.

Florida - Dr. Blair Witherington with the Florida Fish and Wildlife Conservation Commission says that they had an average season, but one that was stormy at the end. Hurricane Floyd was pretty tough on the beaches. The remaining nests that were due to hatch were either washed away or covered up. But overall it was a pretty good season.

Notes on Folks

The newest nest protection project is on Dewees Island. This nesting season, the volunteers worked under Mary Ellen Rogers, Coordinator of the Isle of Palms/Sullivan's Island Project. Next year they hope to have their own project under the leadership of the island's naturalist, Arla Jessen.

Arla, along with Bruce Harry and Toone Lapham, worked especially hard during this, their "rookie" year, with a total of 13 nests laid on the island's beach. We welcome Dewees to our statewide sea turtle network.

Acknowledgments

We wish to thank Sandy MacPherson, National Sea Turtle Coordinator with the U.S. Fish and Wildlife Service, for donating copies of the slide program "America's Sea Turtles" for use by South Carolina volunteer community projects in their education efforts.

We also thank the *Islander* Newspaper and its publisher Linda Benedict for excellent coverage of sea turtle activities in the Charleston area. They launched the "Lights Out for Loggerheads" fund-raising program to assist local projects. To date 334 sea turtle license plates have been sold. Grants from sales have so far been given to projects at Folly Beach, the Town of Edisto Beach, and Seabrook Island. Turtle license plates can be purchased for \$3 dollars each (plus \$2 postage) from the *Islander* Newspaper Office, 1811 Paulette Drive, Johns Island, SC 29455, ph: 843-559-7732.

Announcements and Events

AGAIN!!

Annual Symposium on Sea Turtle Biology and Conservation: The 20th Annual Symposium on Sea Turtle Biology and

Conservation will be held at the Delta Orlando Resort, Orlando, Florida, USA between 29th February and 4th March, 2000.

On Tuesday, 29th February, a special one-day mini-symposium on the biology of the loggerhead turtle will take place followed by an evening social event. Poster presentations and oral paper presentations will take place Wednesday, Thursday and Friday. The annual auction will be on Thursday evening and the concluding banquet with presentation of awards, entertainment and dancing will be on Friday evening.

If you are new to the symposium or your address has changed since you last attended, contact the symposium registrar:

Chris Koepfel
20th Sea Turtle Symposium,
9700 South A1A,
Melbourne Beach, FL 32951 USA
Fax: 1-407-674-1804
E-mail: y2ksts@aol.com

Deadlines: Abstracts - 15 November, 1999.
Register before 15 January, 2000 to avoid a \$15.00 late charge.

All symposium and registration information can be found on line at
<www.seaturtle.org/tortuga2000>.

Resources

To catch up on your reading over the winter season, we suggest the following books and reports and indicate where they can be obtained. So curl up before the fire and enjoy.

Publications

- ☐ "The Windward Road." Dr. A. Carr.

The book that started it all. Dr. Archie Carr wrote about his travels to remote Caribbean beaches in the 1940's and 50's, where he looked for clues and talked to local residents in his effort to unravel the mysteries of the enigmatic sea

turtles. This book alerted the world to the decline of sea turtle populations, and won several awards, including the John Burroughs Medal from the American Museum of Natural History. - \$19.95

- ☐ "The Sea Turtle - So Excellent a Fish." Dr. A. Carr.

Dr. Carr continues his search for answers to sea turtle mysteries in this 1967 classic. Some of his monumental zoological discoveries and remarkable scientific theories are recorded here, including the discovery of the Rancho Nuevo nesting ground, a discussion of green turtle homing behavior, and a summary of the findings of the first 26 years of the Tortuguero tagging program. - \$19.95
(Available from: Caribbean Conservation Corporation, 4424 NW 13th Street, Suite #A1, Gainesville, FL 32609)

- ☐ "Biology and Conservation of Sea Turtles." Revised Edition, Bjorndal, K.A. (ed.). 1995.
(Available from: Smithsonian Institution Press, Marketing Department, 470 L'Enfant Plaza, Suite 7100, Washington, D.C. 20560)

- ☐ "Recovery Plan for US Population of Loggerhead Turtle." NMFS and USFWS. 1991.
(Available from: U.S. Fish & Wildlife Reference Service, 5430 Grosvenor Lane, Suite 110, Bethesda, MD 20814)

- ☐ "An Assessment of the Kemp's Ridley (*Lepidochelys kempii*) and Loggerhead (*Caretta caretta*) Sea Turtle Populations in the Western North Atlantic." Turtle Expert Working Group. 1998. NOAA Technical Memorandum NMFS-SEFSC-409, NMFS, Miami.
(Available from: National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161)

☐ "Research and Management Techniques for the Conservation of Sea Turtles." Eckert, K. et.al. (eds.). 1999. With 42 chapters by authors from around the world, the manual was designed to provide guidance for field researchers and conservationists and standardize methodology to allow comparison of data within regions and across ocean basins.

(Available from: MTSG c/o CMC, 1725 DeSales St. NW Suite 600, Washington, DC 20036. Price \$25. Make checks payable to "IUCN Marine Turtle Specialist Group." Copies may also be ordered with a credit card by sending an email to <mdonnelly@dccmc.org> with the message header "Techniques manual order.")

☐ "A History of Research and Management of the Loggerhead Turtle (*Caretta caretta*) on the South Carolina Coast." Hopkins-Murphy, S.R., C.P. Hope and M.E. Hoyle. 1999.

(Available from: Endangered Species Office, PO Box 12559, Charleston, SC 29422)

Sea Turtle Web Sites

☐ <www.dnr.state.sc.us/marine/turtles.html> Movement and habitat use of South Carolina post-nesting loggerhead sea turtles.

☐ <cccturtle.org/sat1.htm> Satellite tracking studies of sea turtles in the United States.

☐ <www.follyturtles.com> Folly Beach Sea Turtle Project.

☐ <www.barefootbubbas.com/loggerhead.html> Fripp Island Sea Turtle Project.

☐ <members.aol.com/saveturtle/websites.htm> Links to more sea turtle web sites.

Reminders

- ✓ All eggs broken during probing or broken by the turtle while nesting must be included in the "number of eggs laid" which is used to calculate nest and hatch success.

✓ All depredated, washed away, lost, and "wild" nests need to be included in the **total** number of nests found in the project area, and used in overall nest and hatch success calculations. While they can be separated for discussion purposes, they need to be combined for overall beach productivity. If not, the data is unusable for state-wide calculations.

✓ The deadline for end of season reports is **December 31, 1999**. (Thank you Seabrook Island for sending in your report on 1 October 1999!)

✓ The end of season report should contain three essential components: (1) "1999 Loggerhead Nesting Data Form," (2) "Nest Inventory Data Sheet" and (3) A report covering the topics contained in the "Outline for Nest Protection Annual Report."

Note: Copies of these three forms were in the folders given to each project at the April DNR workshop.

✓ Please retain your field note-books or nest note-cards. Questions may arise from review of the reports for which original field observations may need to be accessed.

✓ A separate e-mail address has now been established for all correspondence regarding sea turtles and sea turtle projects in South Carolina. This e-mail address is

<sccturtle@mrd.dnr.state.sc.us>.

This will improve the flow of information between the projects, the DNR, and other collaborators. If you wish to reach individuals, please continue to use their direct/personal e-mail addresses.

Special Feature

About This Year...And About Next Year...

The 1999 sea turtle season was certainly not without extremes and dynamic changes. Many projects experienced their highest nest numbers in years. However, when the nests started emerging and volunteers began their inventories, the hatch rates were most discouraging. Cool spells followed by record high temperatures, periodic heavy rainfall, extreme high tides, and eventually the hurricanes of Dennis and Floyd, all of which may have contributed to the season's unusual hatch results. While we dare not predict what next year will bring, we certainly hope that there will be better weather.

Despite the nesting results, this was a successful season of collaboration with several advancements. As with any large scale program involving hundreds of people and miles of beaches, there were challenges, valuable lessons, and opportunities for success. Hopefully many of the advances made this year will give us a head-start in the coming season.

The biggest challenge pertains to developing a statewide picture based on the data generated by the now 20 projects. Differences in the ways that each project records data make the statewide picture less accurate. Some of the differences have to do with projects continuing with methods passed down from previous years. With 700 plus people working with sea turtles on the beaches of South Carolina, having a standardized methodology is essential. Fortunately one calculation, the total nest number, continues to provide an accurate statewide picture, from which South Carolina's contribution to loggerhead recovery in the southeastern United States can be measured.

Discussions with project leaders have initiated a review of the methodologies currently in

use. We plan to examine what data are collected and if necessary, make revisions. By making it easier to collect and record, we hope that the data will be more accurate.

Developing tools for this purpose will also be explored. A training video is currently being produced to cover all the basic methodologies used in nest protection in the state, and to act as an illustration of the current protocol. This video will be made available to all the projects and can be reviewed as often as it is necessary by all the volunteers and staff.

Communication continues to be a critical issue. Since all the projects have access to e-mail, compiling and distributing an e-mail directory has been of great assistance. Some projects are using the directory to contact neighboring projects to compare observations and experiences. The new e-mail address established at DNR to promote communications between projects and DNR has been active.

These developments are important first steps in initiating an electronic network for sea turtle activities within South Carolina. Such a network will allow projects to send messages to each other, while giving other projects an opportunity to follow and participate in the discussion. Folly Beach and Kiawah Island have taken the lead in establishing such electronic networks within their own projects. A statewide electronic network is planned for next year. Hopefully, some of the projects will coordinate its formation and management.

The *Loggerheadlines* Newsletter was expanded to include a variety of topics and resources. With continued contributions by the volunteers on a variety of related topics, further expansion can be expected next year. Increased circulation would also be beneficial. Currently it is sent to project coordinators and colleagues in state and federal agencies and conservation organization. Ways to expand circulation to reach as many of the volunteers as possible will be explored next year. Posting

it on the world wide web and sending it out electronically are some of the possibilities.

The role of nest protection projects in educating the tens of thousands of visitors to South Carolina beaches is also important. Often volunteers use opportunities such as relocating or inventorying a nest to educate observers on sea turtle natural history and conservation. Additional resources and tools will be explored to aid in these efforts.

Many projects will be sending representatives to the International Sea Turtle Symposium. This symposium is a tremendous source of information and motivation. We continue to seek ways of making the annual DNR spring workshop more useful and interactive.

Many project participants have expertise or experience dealing with a variety of education, conservation, or organization issues. Some have had great success with fund-raising, often using innovative ways to do so. Others have been successful implementing "Lights Out" campaigns and enforcing lighting ordinances on their beaches. Some projects are exploring ways to formally incorporate their program as an environmental organization in their community.

This experience and expertise can be shared with other projects in the state to accomplish similar goals, thus saving time and resources and without "reinventing the wheel." Projects can use the communication tools listed above to exchange information and experiences, and assist in developing South Carolina's sea turtle network.

Thanks to you all for a great season !

Many thanks to all the volunteers and staff for their dedication and enthusiasm this turtle season. Sea turtle conservation in South Carolina is a reality because of your efforts. Loggerheads will continue to nest on South Carolina beaches because of the protection you have provided over the past 20 years.

Thanks also go to those from state, federal, and non-governmental organizations that have made this season successful, including South Carolina Department of Natural Resources, U.S. Fish and Wildlife Service, National Marine Fisheries Service, The Nature Conservancy, and the state coordinators from North Carolina, Georgia, and Florida.

We thank many of you who provided advice, feedback, observations, criticisms, and encouragement, thus prompting invaluable changes and reviews. We look forward to another season of healthy collaboration and exchange.

Now that the season is over, thus providing several months of "vacation" until next May, we hope that you will give some thought to advancing our efforts. In partnership we can have another successful season in 2000. Until the sea turtle season of the new millennium, have a safe and restful winter.

If you have questions or comments please contact...

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